

Application No. 10/672,892
Reply to Office Action Dated 05/06/2004
Amendment Dated 7/19/2004

REMARKS/ARGUMENTS

By this Amendment, claim 24 is amended and claim 27 is added. Claims 1-27 are pending.

Support for amending claim 24 can be found on page 14, lines 10-15. Support for the new claim 27 can be found on page 9, lines 16-25.

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-26 Provisional Rejection -Obviousness-Type Double Patenting

Claims 1-26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-24 of a co-pending U.S. Application No. 10/672/893. This rejection is respectfully traversed.

Applicants will at a later time attend to this provisional rejection to the extent it is not obviated by subsequent activity in this and the allegedly conflicting application.

Accordingly, Applicants respectfully request that this provisional rejection be held in abeyance at the present time.

Claims 24-26 Rejection -Obviousness-Type Double Patenting

Claims 24-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 27 of U.S. Patent No. 6,320,011 to Levy et al. This rejection is respectfully traversed.

Claims 24-26 as amended obviate the rejection. Levy et al. teach grafting sulfur-containing substituents such as geminal bisphosphonate thiol or a thioalkylamine moiety with a

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urethane amino moiety of a polyurethane as disclosed in Section 13, lines 28-67 and Section 16, lines 30-66. The sulfur-containing substituents disclosed by Levy et al. differ from the thiol substituents of the present invention and thereby yield polyurethanes having distinctively different properties. In the sulfur-containing substituents disclosed by Levy et al., a sulfur atom is connected to a carbon atom of an alkylene, an alkenylene, or an arylene part of a bisphosphonate moiety or an alkylamine moiety and therefore, the bond between the sulfur atom and the carbon atom is much stronger and cannot be broken without damaging the polyurethane' backbone. On the contrary, in the present invention, the sulfur atom of the thiol substituent is connected to a group which can be removed or deprotected without damaging the polyurethane. For example, the sulfur atom of the thiol substituent is connected to a carbon atom of a carbonyl group ($\text{S}-\text{C}(\text{O})\text{R}^3$) or forms a disulfide bond with another sulfur atom ($\text{S}-\text{SR}^4$). Thus, the thiol substituent of the present invention can be deprotected by removing a fragment of the thiol substituent (e.g., $-\text{C}(\text{O})\text{R}^3$ or $-\text{SR}^4$) connected to the sulfur atom of the thiol substituent such that after deprotecting, the sulfur atom of the thiol substituent remains pending from the polyurethane as disclosed on page 14, lines 8-15 of the application.

Claims 25 and 26 depend from claim 24 and are unobvious over Levy et al. for at least the same reasons claim 24 is unobvious.

New claim 27 is added to more fully claim the scope of the invention, and is unobvious over Levy et al. for at least the same reasons as claim 24 from which it depends.

Reconsideration and withdrawal of the double patenting rejection of claims 24-26 are respectfully requested.

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For at least the reasons set forth above, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully requested.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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